EXHIBIT C-10
EXEMPLARY PORTIONS OF PRIOR ART THAT TEACH OR SUGGEST EACH ELEMENT OF THE ASSERTED '661 CLAIMS
PATENT L.R. 3-3(C)

Claim 11 ('661 Patent)	U.S. 4,225,962 to Meyr et al. ("Meyr")
A cryptographic processing device for securely performing a cryptographic processing operation in a manner resistant to discovery of a secret by external measurement of said device's power consumption, comprising:	1:14-30 – "This invention relates generally to secure communications, and more specifically to a method for rendering a teletypewriter using a mosaic printer (i.e., a printer operating on the principle of a dot matrix, for example a 5 x 7 matrix of dots) whereby the dots are caused by needles driven at high velocity by electromechanical drives. The electromechanical drives place a high impulsive load on a power supply causing superimposed modulation thereon and on associated power utility lines to the power supply whereby the superimposed modulation can be reconstructed to determine the registration and symbols of the printed text. Similarly, the high currents in the electromechanical drives and connecting lines tend to radiate into the surrounding space such that a receiver for electromagnetic radiation pulses some distance away can be used to covertly deduce the registration and symbols of the printed text." 1:67-2:9 – "The invention is based on the principle of falsifying any electromagnetic stray fields so that they do not yield any information about the text being printed. The invention is characterized by a compensation device which simulates the electrical characteristics of the drives and of their connecting lines and which is placed in close proximity with these drives and lines, and by means for switching the compensation device on simultaneously with the drives each print cycle; i.e., the period from receipt of a print instruction to the impact of the needles on the paper." 2:10-14 – "It is a primary object of the invention to provide a means for falsifying the strength and sequence of the radiated pulses so that each symbol, which is made up of a fixed series of different drive combinations, cannot be determined from stray fields." 2:15-20 – "It is another object of the invention to provide a compensation device to simulate the electrical characteristics of the drives and their connecting lines which can be added to existing mosaic printers, being placed close to the drives and connecting lines, emulating a single radiation source." 2:21-25 – "It is yet another object of the invention to provide a selection unit which can be encoded by a pseudorandom code generator to make decoding of the stray pulse electromagnetic fields

	by unauthorized persons virtually impossible." 2:60-3:2 – "Pulse currents in the connecting lines 14 places variable loads on the power supply 15, which in turn results in a variation of the supply current from the power utility lines 16. This superimposed current modulation introduces a possibility for unauthorized access to the mosaic printer via the power lines by a simple electromagnetic pickup coil placed on the lines, or by a direct connection to the lines, It is also known that information may be obtained from power line ground connecting lines in certain cases. Mosaic printers may thus be tapped by many different methods."
(a) an input interface for receiving a quantity to be cryptographically processed, said quantity being representative of at least a portion of a message;	2:1-9 – "The invention is characterized by a compensation device which simulates the electrical characteristics of the drives and of their connecting lines and which is placed in close proximity with these drives and lines, and by means for switching the compensation device on simultaneously with the drives each print cycle; i.e., the period from receipt of a print instruction to the impact of the needles on the paper." 3:28-33 – "FIG. 3 shows the block diagram of a teletypewriter which incorporates a mosaic printer and a compensation device. The telex transmission pulses coming in via the telegraph line 30, are received by the receiver and decoder 31. The telex characters are decoded in this unit and processed in a known fashion." Figure 3.
(b) an input interface for receiving a variable amount of power, said power consumption varying measurably during said performance of said operation;	3:43-54 – "The compensation device 22 is connected in parallel with selection logic 13. Thus this device 22 and the selection logic 13 are switched to the power supply 15 simultaneously by connection unit 33. The energy supplied by the power supply 15 in every printing cycle thus depends on the power required by the switched drives 12 of the printing head 10 and by the switched comparators 22a to 22g of the compensation device 22. Thus it is not possible to derive the number of drives 12a to 12g switched by detecting the strength of the current pulses in the line 20, in the drives 12 and in the compensation device 22." Figure 3. 5:26-40 – "As may be seen, every column and row for c' contains exactly the numbers from 7 to 14, which corresponds to an statistically equal distribution. The hardware realization of the method described consists of the random number generator 35 already described and of a logic circuit contained in the compensator selector 34, realizable easily by one skilled in the art and generating the values of z' in

	correspondence with the above table. For this the values of k must be given to the compensator selector 34 over lines (dashed line, FIG. 3) between the selection logic 13 and the compensator selector 34. Furthermore, a larger number of compensators 22a to 22 . . . n is required; in the given example, a total of 14 compensators are required."
(c) a processor connected to said input interface for receiving and cryptographically processing said quantity; and	3:6-13 – "The drives 12a to 12g are connected to line 20 in parallel. As a whole they make up the needle actuating means of the printing head. Each time a printing cycle takes place, line 20 is connected momentarily to the power supply 15 through switch 21. The switches 13a to 13g select the printing needles to be actuated. Therefore these switches represent a part of the selection logic 13."
(d) a noise production system for introducing noise into said measurement of said power consumption.	2:21-25 – "It is yet another object of the invention to provide a selection unit which can be encoded by a pseudorandom code generator to make decoding of the stray pulse electromagnetic fields by unauthorized persons virtually impossible." 2:60-3:2 – "Pulse currents in the connecting lines 14 places variable loads on the power supply 15, which in turn results in a variation of the supply current from the power utility lines 16. This superimposed current modulation introduces a possibility for unauthorized access to the mosaic printer via the power lines by a simple electromagnetic pickup coil placed on the lines, or by a direct connection to the lines, It is also known that information may be obtained from power line ground connecting lines in certain cases. Mosaic printers may thus be tapped by many different methods." 4:1-7 – "Another possibility is to control the compensator selector 34 by an additional random number generator 35. In this case, at each printing cycle additional to the current required by the printing head 10 a current is added by the compensation device 22 whose value depends on the random number generated and corresponds to 0, 1, 2, . . . i compensator drive currents." Figure 3. 5:52-56 – "In addition, the combined equipment must be arranged physically in such a manner that the pulse stray fields generated by the printing and compensation cycles seem to come from the same source." Claim 3 – "The mosaic printer of claim 1 wherein said compensation device comprises a plurality of compensators and compensator electric lines, each simulating the electrical characteristics of one of said

	electromechanical drive and electric line, and said compensator selector is driven by a random number generator connected to said second input of said compensator selector and said selection logic output is connected to said compensator selector at said third input."

Claim 29 ('661 Patent)	**U.S. 4,225,962 to Meyr**
A method of securely performing a cryptographic processing operation in a manner resistant to discovery of a secret within a cryptographic processing device by external monitoring of said device's power consumption, comprising:	1:14-30 – "This invention relates generally to secure communications, and more specifically to a method for rendering a teletypewriter using a mosaic printer (i.e., a printer operating on the principle of a dot matrix, for example a 5 x 7 matrix of dots) whereby the dots are caused by needles driven at high velocity by electromechanical drives. The electromechanical drives place a high impulsive load on a power supply causing superimposed modulation thereon and on associated power utility lines to the power supply whereby the superimposed modulation can be reconstructed to determine the registration and symbols of the printed text. Similarly, the high currents in the electromechanical drives and connecting lines tend to radiate into the surrounding space such that a receiver for electromagnetic radiation pulses some distance away can be used to covertly deduce the registration and symbols of the printed text." 1:67-2:9 – "The invention is based on the principle of falsifying any electromagnetic stray fields so that they do not yield any information about the text being printed. The invention is characterized by a compensation device which simulates the electrical characteristics of the drives and of their connecting lines and which is placed in close proximity with these drives and lines, and by means for switching the compensation device on simultaneously with the drives each print cycle; i.e., the period from receipt of a print instruction to the impact of the needles on the paper." 2:10-14 – "It is a primary object of the invention to provide a means for falsifying the strength and sequence of the radiated pulses so that each symbol, which is made up of a fixed series of different drive combinations, cannot be determined from stray fields." 2:15-20 – "It is another object of the invention to provide a compensation device to simulate the electrical characteristics of the drives and their connecting lines which can be added to existing mosaic printers, being placed close to the drives and connecting lines, emulating a single radiation source." 2:21-25 – "It is yet another object of the invention to provide a selection unit which can be encoded by a pseudorandom code

	generator to make decoding of the stray pulse electromagnetic fields by unauthorized persons virtually impossible." 2:60-3:2 – "Pulse currents in the connecting lines 14 places variable loads on the power supply 15, which in turn results in a variation of the supply current from the power utility lines 16. This superimposed current modulation introduces a possibility for unauthorized access to the mosaic printer via the power lines by a simple electromagnetic pickup coil placed on the lines, or by a direct connection to the lines, It is also known that information may be obtained from power line ground connecting lines in certain cases. Mosaic printers may thus be tapped by many different methods."
(a) receiving a variable amount of power, said power consumption varying measurably during said performance of said operation;	3:43-54 – "The compensation device 22 is connected in parallel with selection logic 13. Thus this device 22 and the selection logic 13 are switched to the power supply 15 simultaneously by connection unit 33. The energy supplied by the power supply 15 in every printing cycle thus depends on the power required by the switched drives 12 of the printing head 10 and by the switched comparators 22a to 22g of the compensation device 22. Thus it is not possible to derive the number of drives 12a to 12g switched by detecting the strength of the current pulses in the line 20, in the drives 12 and in the compensation device 22." Figure 3. 5:26-40 – "As may be seen, every column and row for c' contains exactly the numbers from 7 to 14, which corresponds to an statistically equal distribution. The hardware realization of the method described consists of the random number generator 35 already described and of a logic circuit contained in the compensator selector 34, realizable easily by one skilled in the art and generating the values of z' in correspondence with the above table. For this the values of k must be given to the compensator selector 34 over lines (dashed line, FIG. 3) between the selection logic 13 and the compensator selector 34. Furthermore, a larger number of compensators 22a to 22 . . . n is required; in the given example, a total of 14 compensators are required."
(b) receiving a quantity to be cryptographically processed, said quantity being representative of at least a portion of a	2:1-9 – "The invention is characterized by a compensation device which simulates the electrical characteristics of the drives and of their connecting lines and which is placed in close proximity with these drives and lines, and by means for switching the compensation device on simultaneously with the drives each print cycle; i.e., the period from receipt of a print instruction to the impact of the needles on the paper."

message;	3:28-33 – "FIG. 3 shows the block diagram of a teletypewriter which incorporates a mosaic printer and a compensation device. The telex transmission pulses coming in via the telegraph line 30, are received by the receiver and decoder 31. The telex characters are decoded in this unit and processed in a known fashion." Figure 3.
(c) introducing noise into said measurement of said power consumption while processing said quantity; and	2:21-25 – "It is yet another object of the invention to provide a selection unit which can be encoded by a pseudorandom code generator to make decoding of the stray pulse electromagnetic fields by unauthorized persons virtually impossible." 2:60-3:2 – "Pulse currents in the connecting lines 14 places variable loads on the power supply 15, which in turn results in a variation of the supply current from the power utility lines 16. This superimposed current modulation introduces a possibility for unauthorized access to the mosaic printer via the power lines by a simple electromagnetic pickup coil placed on the lines, or by a direct connection to the lines, It is also known that information may be obtained from power line ground connecting lines in certain cases. Mosaic printers may thus be tapped by many different methods." 4:1-7 – "Another possibility is to control the compensator selector 34 by an additional random number generator 35. In this case, at each printing cycle additional to the current required by the printing head 10 a current is added by the compensation device 22 whose value depends on the random number generated and corresponds to 0, 1, 2, . . . i compensator drive currents." Figure 3. 5:52-56 – "In addition, the combined equipment must be arranged physically in such a manner that the pulse stray fields generated by the printing and compensation cycles seem to come from the same source." Claim 3 – "The mosaic printer of claim 1 wherein said compensation device comprises a plurality of compensators and compensator electric lines, each simulating the electrical characteristics of one of said electromechanical drive and electric line, and said compensator selector is driven by a random number generator connected to said second input of said compensator selector and said selection logic output is connected to said compensator selector at said third input."
(d) outputting said cryptographically	3:33-37 – "The character generator 32 eventually determines which printing needle drives have to be switched so that the required symbol

processed quantity to a recipient thereof.	composed of the individual dots made by the printing needles appears on the paper."